Amendments to the Drawings

Fig. 9 has been amended to correct a typographical error in "database" at reference number **910**.

Fig. 11 has been amended to replace "value(s" with "values(s)" at **1160**.

No new matter has been introduced with these drawing amendments.

REMARKS

The Specification and Drawings have been amended to correct obvious mistakes. Claims 1, 3 - 4, 6 - 12, 14 - 18, and 20 - 21 have been amended to clarify the subject matter which Applicants regard as their invention. Claims 22 - 23 have been added. No new matter has been introduced with these amendments or added claims, all of which are supported in the specification as originally filed. Claims 2 and 5 have been cancelled from the application without prejudice. Claims 1, 3 - 4, 6 - 18, and 20 - 23 are now in the application.

I.   Proposed Replacement Drawings

Proposed replacement drawings are provided herewith for **Figs. 9** and **11**, as discussed above in "Amendments to the Drawings". No new matter has been introduced with these proposed replacement drawings.

II.   Claim Objections

Paragraph 3 of the Office Action dated December 7, 2007 (hereinafter, "the Office Action") states that Claims 1 - 2, 5 - 11, 15 - 17, and 20 - 21 are objected to because of various informalities. Appropriate amendments are provided herein. (Applicants note that, regarding the "for" term in Claims 11, 20, and 21, this term is contained within a "programmatically identifying ... by consulting a lookup table ..." element. Applicants respectfully submit that the "programmatically identifying" claim element is clearly functional, and is not rendered non-functional because the term "for" appears therein.) Accordingly,

Applicants respectfully request the Examiner to withdraw this objection.

III.   Rejection under 35 U. S. C. §101

Paragraph 5 of the Office Action states that Claims 20 - 21 are rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter. Applicants have amended the preambles of these claims, and respectfully request that this rejection be withdrawn.

IV.   Rejection under 35 U. S. C. §112, first paragraph

Paragraph 7 of the Office Action states that Claim 8 is rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. In particular, the term "comparator to use in determining a match" is deemed problematic in the "programmatically identifying" element of Claim 8. This rejection is respectfully traversed.

Query qualifiers are illustrated in **Fig. 4** at reference numbers **421, 431**. Applicants respectfully refer the Examiner to the Specification on p. 10, lines 14 - 20 (referring also to "<" and other qualifiers *usable for determining a match* with numeric values) and p. 11, line 5 - p. 12, line 7. In particular, see p. 11, lines 10 - 12 (discussing matching techniques that include "pattern-matching" for string values); p. 11, lines 17 - 18 (referring to "making a programmatic determination of which content values match a particular query"); p. 12, lines 1 - 2 ("sets of job titles that are to be considered as matching"); and p. 12, lines 4 - 7 (providing an example that uses "EQUAL" and "IN" as alternative query qualifiers for matching a job location).

In view of the above, the Examiner is respectfully requested to withdraw this rejection.

V.   Rejection under 35 U. S. C. §102(e)

Paragraph 9 of the Office Action states that Claims 1 - 2, 4 - 6, 8 - 9, 11 - 16, 18, and 20 - 21 are rejected under 35 U.S.C. §102(e) as being anticipated by U. S. Patent 6,985,899 B2 to Chan et al. (hereinafter, "Chan"). Claims 2 and 5 have been cancelled from the application without prejudice, rendering the rejection moot as to those claims. This rejection is respectfully traversed with regard to the remaining claims.

Applicants have amended their independent Claims 1, 8, 11, 20, and 21 to more clearly specify limitations of their claimed invention, and Applicants respectfully submit that these independent claims are patentably distinct from Chan, as will now be demonstrated.

As the Federal Circuit stated in **W.L. Gore & Associates v. Garlock, Inc.**, 220 USPQ 303, 313 (Fed. Cir. 1983), **cert. denied**, 469 U.S. 851 (1984), "Anticipation requires the disclosure in a single prior art reference of *each element* of the claim under consideration." (emphasis added). A finding of anticipation further requires that there must be no difference between the claimed invention and the disclosure of the cited reference as viewed by one of ordinary skill in the art. See **Scripps Clinic & Research Foundation v. Genentech Inc.**, 927 F.2d 1565, 1576, 18 U.S.P.Q.2d 1001, 1010 (Fed. Cir. 1991). In particular, the Court of Appeals for the Federal Circuit held that a finding of anticipation requires absolute identity for

each and every element set forth in the claimed invention. See *Trintec Indus. v. Top-U.S.A. Corp.*, 63 U.S.P.Q.2d 1597 (Fed. Cir. 2002).

Fig. 1 is used in Applicants' specification as a starting point for the example scenarios which are shown in **Figs. 4 - 7** and which are used to describe Applicants' invention. Note that **Fig. 1** itself does <u>not provide</u> any type of query interface. See also p. 2, lines 7 - 8, discussing a prior art problem that exists when "users are limited to ... predetermined data feeds which are defined by other parties ...". Applicants' invention can be used to provide a query interface, even though none has been provided (as in the scenario of **Fig. 1**) or going beyond a limited set of "predetermined" choices that are defined by other parties (i.e., as represented in a static selection interface that offers only <u>predetermined</u> choices).

Applicants' claimed invention is directed, in its various aspects, toward <u>programmatically identifying</u> several different types of information usable as "candidates" for building a query command, and then supplying this programmatically-identified information on a user interface that is configured to build the query command. So, for example, a user interface display **400** of **Fig. 4** might be provided for use in querying the content source that corresponds to **Fig. 1**. Applicants' independent claims correspond generally to *different ones* of the types of programmatically-identified information or candidates discussed in Applicants' specification, as will now be described.

With regard to independent Claim 1, it should be noted that a query parameter _name_ is different from a query parameter _value_ (as is well known in the art), and the inventive aspect claimed in independent Claim 1 pertains to programmatically identifying query parameter _names_ (as opposed to query parameter _values_). Claim 1 is amended herein, by way of clarification, to explicitly refer to the "parameter" as a "parameter name".

The programmatic identification of a parameter _name_ or names, as claimed in independent Claim 1, is described in Applicants' specification with regard to **Fig. 4** where the "Location" **420** and "Job Title" **430** are programmatically identified. See p. 10, lines 7 - 12 (where the term "query parameters" is used as a shorthand for "query parameter names") and p. 8, line 16 - p. 9, line 1 (where the term "columns" is used as a synonym for "query parameter names", referring to the columns illustrated in **Fig. 1**); see also p. 13, lines 7 - 10, discussing a scenario comprising identifying the tag names from a Web page and, as a result, obtaining column headings **120 - 160** for use in the query interface.

In other words, "Location" is illustrated in **Fig. 4** as a query parameter _name_ at **420** and in this example, it may have a corresponding query parameter _value_ of "Raleigh, NC" (see **422**).

Applicants' independent Claim 1, as currently presented, specifies limitations of:

> programmatically identifying, for a content source, at least one element thereof by programmatically obtaining one or more tag names from a markup language document used for rendering a view of the content source;

> using at least one of the programmatically-obtained tag names to consult a lookup component to obtain at least one candidate query parameter name for querying the content source; and
>> displaying each obtained candidate query parameter name on a user interface display configured to build a query command, responsive to selection by a user of at least one of the displayed candidate query parameter name or names, to query the content source (emphasis added)

Applicants find no teaching in Chan of (at least) the above-underlined limitations from Claim 1. With regard to the "programmatically identifying" element of Claim 1 (now amended to also include a "using" element), the Office Action cites (on p.5, lines 5 - 8) Chan's **Fig. 5**, reference number **504** as well as col. 5, lines 26 - 34 and col. 6, lines 13 - 15. However, Applicants respectfully submit that initializing a query and building a select clause (as per **Fig. 5**, reference number **504**) is not the same as obtaining candidate query parameter names by consulting a lookup component (as specified in Claim 1, lines 6 - 8) using at least one tag name that was programmatically obtained from a markup language document (as specified in Claim 1, lines 3 - 5). With regard to the cited text from col. 5, Applicants find no teaching in Chan that the parameter names shown in screen shot **200** (i.e., "Description", "Manufacturer", and "Price") were obtained by consulting a lookup component using at least one tag name that was programmatically obtained from a markup language document (in contrast to Claim 1, lines 3 - 8).

With regard to the cited text from col. 6, Applicants note that the Examiner states, on p. 5, lines 7 - 8 of the Office Action, that "parameters" could mean "predicates". Applicants respectfully disagree. See the definition of "predicates" in a computer programming context at

www.wikipedia.org, which states that a predicate "is an operator or function which returns a boolean value ...". Applicants have clarified the limitations of Claim 1 to recite "parameter name", and it clear that a parameter name is not something that "returns a boolean value".

Accordingly, Applicants respectfully submit that Chan does not teach each element of Claim 1, with absolute identity for each and every element, and thus, according to the above-discussed holdings in *W.L. Gore & Associates*, *Scripps Clinic*, and *Trintec Indus.*, Claim 1 is not anticipated by Chan.

Referring next to independent Claim 8, this claim specifies (in lines 3 - 7) that at least one candidate query qualifier is programmatically identified by consulting a lookup component using contextual information pertaining to the user.

The programmatic identification of a parameter qualifier or qualifiers, as claimed in independent Claim 8, is described in Applicants' specification with regard to reference numbers **421**, **431** of **Fig. 4** where the values "LIKE" **421** and "LIKE" **431** are programmatically identified. See also p. 10, lines 14 - 20 (referring also to "<" and other qualifiers usable with numeric values) and p. 11, line 5 - p. 12, line 7 (discussing matching techniques that include pattern-matching for string values and other "programmatic determination[s] of which content values match a particular query").

Applicants' independent Claim 8, as currently presented, specifies limitations of:

programmatically identifying, for each of at least one query parameter name to be used when querying a content source, <u>at least one candidate query qualifier by consulting a lookup component using contextual information pertaining to a user</u>, wherein each candidate query qualifier specifies a comparator to use in determining a match for a value of that query parameter name; and

displaying each of the programmatically identified query parameter names, and for each query parameter name, each of the at least one candidate query qualifiers, on a user interface display configured to build a query command, responsive to input from the user, to query the content source, wherein the input from the user comprises selecting at least one of the displayed query parameter names and, for each selected query parameter name, one of the displayed candidate query qualifiers. (emphasis added)

Applicants find no teaching in Chan of (at least) the above-underlined limitations from Claim 8. With regard to the "programmatically identifying" element of Claim 8, the Office Action cites (on p. 7, lines 10 - 14) Chan's **Fig. 5**, reference number **504** as well as col. 6, lines 13 - 15, 24 - 34, and 41 - 44. The citations to **Fig. 5** and col. 6, lines 13 - 15 have been discussed above with reference to Claim 1, and those arguments apply equally to Claim 8.

With regard to the cited text from col. 6, lines 24 - 34, this text discusses resolving "joint predicates" using "relationships existing amongst tables" and also discusses "common predicates". However, Applicants respectfully submit that this text does <u>not</u> teach all of the claim limitations found on lines 3 - 7 of Claim 5.

The cited text from col. 6, lines 41 - 44 pertains to a "from" clause of a query. As is known in the art, the "from" clause identifies the content <u>source</u>. Accordingly, Applicants respectfully submit that this cited text is not relevant to the claim limitations of Claim 8.

Applicants find no teaching in Chan of identifying query qualifiers "by consulting a lookup component using contextual information pertaining to a user", as claimed by Applicants on lines 4 - 5 of Claim 8. Therefore, according to the holdings in *W.L. Gore & Associates*, *Scripps Clinic*, and *Trintec Indus.*, Claim 8 is not anticipated by Chan.

Referring next to independent Claim 11, this claim specifies (in lines 5 - 9) that at least one candidate query extension is programmatically identified by consulting a lookup component using contextual information pertaining to a user.

The programmatic identification of a query extension or extensions, as claimed in independent Claim 11, is described in Applicants' specification with regard to reference number **540** of **Fig. 5** where the parameter name "Salary" **540** has been programmatically identified, based on already-identified parameter names of "Location" **420** and "Job Title" **430**. See p. 16, lines 6 - 15 (referring to the already-identified parameter names as "query parameters" or "column headings", which may have been "determined programmatically" or which "may have been selected explicitly by a user").

Applicants' independent Claim 11, as currently presented, specifies limitations of:

> obtaining a set of one or more query parameter names for querying a content source;
> programmatically identifying, for the obtained set of query parameter names, one or more candidate extensions thereto for querying the content source by consulting a lookup component using contextual information pertaining to a user, each of the candidate extensions comprising an additional query parameter name for querying the content source; and

displaying the set of query parameter names, and the programmatically-identified candidate extensions thereto, as an extended set of query parameter names on a user interface display configured to build a query command to query the content source responsive to selection, by the user, of at least one of the query parameter names from the extended set. (emphasis added)

Applicants find no teaching in Chan of (at least) the above-underlined limitations from Claim 11. With regard to the "programmatically identifying" element of Claim 11, the Office Action cites (on p. 8, lines 10 - 14) col. 6, lines 16 - 19, 24 - 34, and 41 - 44. Lines 24 - 34 and 41 - 44 have been discussed above, and these discussions apply equally to Claim 11. With regard to col. 6, lines 16 - 19, this text discusses providing "common search criteria" as additional predicates and appending those additional predicates to the query as "hard-coded operands". However, Applicants find no teaching in Chan of using "contextual information pertaining to a user" when identifying query extensions (Claim 11, lines 5 - 7). Furthermore, Applicants do not claim that the extensions are "hard-coded" to the query; instead, Applicants claim "candidate extensions" that are displayed on a user interface from which the user may (or may not) select one of the parameter names (Claim 11, lines 10 - 14).

Therefore, according to the above-discussed holdings in *W.L. Gore & Associates*, *Scripps Clinic*, and *Trintec Indus.*, Claim 11 is not anticipated by Chan.

Referring next to independent Claim 20, this claim specifies (in lines 5 - 9) limitations analogous to those which have been discussed, above, with reference to lines 5 - 9 of Claim 11. The arguments presented above apply, in an analogous manner, to the limitations of Claim 20.

The Office Action further cites (on p. 10, line 15 - p. 11, line 2) reference number **206** of Chan's **Fig. 2** and col. 5, line 35 when discussing the "programmatically identifying" element of Claim 20. However, Applicants find no teaching in Chan that the parameter value "Sears" (shown in **Fig. 2**, reference number **206**) is a "candidate extension" or that this parameter name was identified "by consulting a lookup component using contextual information pertaining to a user", as claimed by Applicants on lines 5 - 9 of Claim 20. Accordingly, Applicants respectfully submit that the "dropdown box" cited by the Examiner from line 35 of col. 5 cannot be combed with the parameter value at **206** to teach the "consulting a lookup component using contextual information pertaining to a user" limitations which are specified in the "programmatically identifying" element on lines 5 - 9 of Claim 20.

Therefore, according to the above-discussed holdings in *W.L. Gore & Associates*, *Scripps Clinic*, and *Trintec Indus.*, Claim 20 is not anticipated by Chan.

Referring next to independent Claim 21, this claim also specifies (in lines 6 - 10) limitations analogous to those which have been discussed, above, with reference to lines 5 - 9 of Claim 11 and lines 5 - 9 of Claim 20. The arguments presented above apply, in an analogous manner, to the limitations of Claim 21. The Office Action also cites (on p. 11, lines 15 - 20) reference number **206** of Chan's **Fig. 2** and col. 5, lines 18 - 19 and 35 when discussing the "programmatically identifying" element of Claim 21. Reference number **206** and col. 5, line 35 have been discussed above, where it has been noted that Applicants find no teaching in Chan of the "consulting a lookup component using contextual information

pertaining to a user" limitations which are also specified on lines 6 - 10 of Claim 21. With regard to col. 5, lines 18 - 19, this is merely a reference to computer-readable code, and also does not teach the limitations on lines 6 - 10 of Claim 21. Accordingly, Applicants respectfully submit that the cited art <u>fails to teach</u> all of the claim limitations found on lines 6 - 10 of Claim 21.

Therefore, according to the above-discussed holdings in ***W.L. Gore & Associates***, ***Scripps Clinic***, and ***Trintec Indus.***, Claim 21 is not anticipated by Chan.

Dependent Claims 4, 6, 9, 12 - 16, and 18 are deemed patentable by virtue of (at least) the patentability of the independent claims from which they depend. The Examiner is therefore respectfully requested to withdraw the §102 rejection of all claims as currently presented.

VI.   Rejection under 35 U. S. C. §103(a)
        Paragraph 11 of the Office Action states that Claims 3, 7, 10, and 17 are rejected under 35 U.S.C. §103(a) as being unpatentable over Chan in view of U. S. Patent 6,055,512 to Dean et al. (hereinafter, "Dean"). This rejection is respectfully traversed.

In paragraph 11 of the Office Action, the Examiner states that Chan does <u>not</u> teach "consulting a lookup table using information regarding the user". Dean is then cited as providing this teaching, making reference to Dean's Abstract and col. 5, lines 49 - 50. Each of Applicants' independent Claims 1, 8, and 11 (from which dependent Claims 3, 7, 10, and 17

depend), as amended herein, specifies limitations not found in Chan or Dean, as will now be discussed.

Independent Claim 1 specifies "programmatically obtaining one or more tag names ..." (Claim 1, lines 3 - 5) and "using at least one of the programmatically-obtained tag names to consult a lookup component" (Claim 1, lines 6 - 7). Neither Chan nor Dean teaches these limitations. Accordingly, dependent Claims 3 and 7 are deemed patentable by virtue of the patentability of Claim 1 from which they depend.

Independent Claim 8 specifies "programmatically identifying ... at least one candidate query qualifier by consulting a lookup component using contextual information pertaining to a user" (Claim 8, lines 3 - 5, emphasis added). Independent Claim 11 specifies "programmatically identifying ... one or more candidate extensions ... by consulting a lookup component using contextual information pertaining to a user" (Claim 11, lines 5 - 9, emphasis added). Applicants respectfully submit that the cited portions of Dean pertain to programmatically identifying parameter values, which is distinct from the limitations of Applicants' Claims 8 and 11. Accordingly, dependent Claims 10 and 17 are deemed patentable by virtue of the patentability of Claims 8 and 11 from which they depend.

In view of the above, the Examiner is respectfully requested to withdraw the §103 rejection.

VII.   Conclusion

Applicants respectfully request reconsideration of the pending rejected claims,

withdrawal of all presently outstanding objections and rejections, and allowance of all

remaining claims at an early date.

Respectfully submitted,

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